Remarks

Claims 18-25 were pending in the subject application. By this Amendment, claim 18 has been amended and claim 26 has been added. The undersigned avers that no new matter is introduced by this amendment. Accordingly, claims 18-26 are currently before the Examiner for consideration. Entry and consideration of the amendments presented herein is respectfully requested.

In response to the objection to the Declaration set forth in the Office Action, submitted herewith is a supplemental Declaration under 37 C.F.R. §1.67, executed by Dr. Daniel Cantliffe and Dr. Craig Chandler. The spelling of the non-signing inventor's address has been corrected. The applicants note that the subject application has been granted status under 37 C.F.R. §1.47(a), pursuant to the Decision of the Office of Petitions dated April 11, 2001. Thus, the signature of Eric B. Bish is not required. Reconsideration and withdrawal of the objection is respectfully requested.

Claims 18-25 have been rejected under 35 U.S.C. §112, second paragraph, as indefinite. The applicants respectfully submit that the recitation "abruptly" does not render the claims indefinite. However, in order to expedite prosecution and to lend greater clarity to the claimed subject matter, claim 18 has been amended to delete the term "abruptly". In view of the amendment to the claim, the applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. 112, second paragraph.

Claims 18-25 have been rejected under 35 U.S.C. §103(a) as being obvious over Heide (*Physiol. Plant*, 1977, 40:21-26) in view of Darrow ("The Strawberry", 1996, Holt *et al.*, pp. 355-365). The applicants respectfully submit that the cited references, taken alone or in combination, do not teach or suggest the claimed invention. However, by this Amendment, the applicants have amended claim 18 to lend greater clarity to the claimed subject matter and to expedite prosecution of the subject application.

The applicants have amended claim 18 to recite a method for inducing flowering of strawberry plants wherein the strawberry plants are grown in a controlled-temperature environment, wherein the method comprises growing the strawberry plants for a first growing period of at least six weeks under photoperiodic conditions and at a daytime temperature which reaches at least 30° C, and wherein the daytime temperature is reduced during a second growing period under photoperiodic

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conditions, after the first growing period, to about 25° C. Support for this amendment can be found, for example, at page 2, lines 25-29, page 4, lines 1-9, and the claims as originally filed. In addition, new claim 26 recites that the photoperiod is reduced from about 12 hours in the first growing period to 6 to 10 hours in the second growing period. Support for claim 26 can be found, for example, at page 2, lines 25-27, of the specification.

In response to the applicants' arguments at page 3 of the outstanding Office Action, the Action indicates that Heide induced flowering by lowering the temperature of cool climate varieties from 24 °C to 18 °C or 24 °C to 12 °C. As indicated at pages 22-23 of Heide, plants were maintained at 24 °C for a time, and different plant samples were subsequently exposed to temperatures of 12°C, 18 °C, or 24 °C, for photoperiods of 10 hours, 12, hours, 14 hours, 16 hours, or 24 hours, depending on each particular sample's treatment regimen. However, as indicated at page 21, second column, line 5 of the Materials and Methods section in Heide, before the plants were subjected to their respective treatments, they were maintained for three weeks at "24 °C and continuous light". Thus, during the three-week period before the temperature was reduced, the plants were maintained under non-photoperiodic conditions at 24 °C. In contrast, claim 18 of the subject application recites that the strawberry plants are grown for a first growing period of at least six weeks under photoperiodic conditions and at a daytime temperature which reaches at least 30° C.

The experiments conducted by Heide were designed to determine optimum temperature and optimum photoperiod (as constant conditions), not to determine optimum changes in temperature and photoperiod (see the abstract and paragraph bridging pages 22-23 of Heide). This is evidenced by the fact that, during the period before treatment, the plants were merely normalized for the experiment, *i.e.*, grown in constant temperature (24 °C) and in constant light (*i.e.*, lacking photoperiodicity) for three weeks, so that uniform plants with 3 to 4 developed leaves could be obtained (see sentence bridging pages 21 and 22 of Heide). The experiment was commenced by subjecting different plant samples to a constant temperature for a particular daylight period, depending upon the treatment group. As indicated in the Declaration by Dr. Craig Chandler under 37 C.F.R. §1.132, which was previously submitted with the Amendment dated September 12, 2002, "the effect of reducing daytime temperature for a particular plant (or sample of plants) from one growing period to the next growing period was not evaluated" by Heide.

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The secondary reference (Darrow) does not cure the defects of the primary reference. As explained by Dr. Cantliffe in his Declaration under 37 C.F.R. §1.132, which was previously submitted with the Amendment dated March 28, 2003, Darrow merely teaches that long photoperiods and cool nights are considered favorable for flowering in strawberry cultivars that are field grown. As the Examiner is aware,

> determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. There must be a teaching or suggestion within the prior art, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources of information, to select particular elements, and to combine them in the way they were combined by the invention. *ATD Corporation v. Lydall, Inc.*, 48 USPQ 2d 1321, 1329 (Fed. Cir. 1998).

Page 357 of Darrow merely indicates that strawberries have adapted to various climates, including a wide range of temperatures, such as –60 °F in Alaska and 115 °F in California. This is only a statement of temperature conditions in which strawberries can grow. Darrow provides no information regarding the effects of reducing temperature and photoperiod on flower induction, particularly the temperature and photoperiod changes recited in the currently pending claims. Darrow provides no motivation to modify the procedures described by Heide in a manner such that plants are grown for a first growing period of at least six weeks under photoperiodic conditions at a daytime temperature which reaches at least 30 °C, and wherein the daytime temperature is subsequently reduced to about 25 °C in a second growing period under photoperiodic conditions in order to induce flowering. The Heide and Darrow publications, when considered alone or taken together, do not teach or suggest the invention as claimed.

The applicants respectfully submit that there is no suggestion or motivation in the prior art references that would lead a person skilled in the art to arrive at the subject invention. As a matter of law, a finding of obviousness is proper only when the prior art contains a suggestion or teaching of the claimed invention. The mere fact that the purported prior art could have been modified or applied in a manner to yield the applicants' invention would not have made the modification or application obvious unless the prior art references suggested the desirability of the modification. *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Moreover, as expressed by the CAFC, to support a §103 rejection, "[b]oth the suggestion and the expectation of success must be founded in

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the prior art . . . ." *In re Dow Chemical Co., supra* at 1531. As shown by the foregoing remarks, neither of the cited references provides the suggestion or the expectation of success in subjecting strawberry plants to either daytime or nighttime temperatures of at least 30°C for a period of at least six weeks under photoperiodic conditions, and to then reduce the daytime temperatures to about 25°C in a second growing period under photoperiodic conditions to induce flowering.

An assertion of obviousness without the required suggestion or expectation of success in the prior art is tantamount to using applicants' disclosure to reconstruct the prior art references to arrive at the subject invention. This was specifically recognized by the CCPA in *In re Sponnoble*, 56 CCPA 823, 160 USPQ 237, 243 (1969):

> The Court must be ever alert not to read obviousness into an invention on the basis of the applicant's own statements; that is we must review the prior art without reading into that art appellant's teachings. *In re Murray*, 46 CCPA 905, 268 F.2d 226, 112 USPQ 364 (1959); *In re Sprock*, 49 CCPA 1039, 301 F.2d 686, 133 USPQ 360 (1962). The issue, then, is whether the teachings of the prior art would, in and of themselves and without the benefits of appellant's disclosure, make the invention as a whole, obvious. *In re Leonor*, 55 CCPA 1198, 395 F.2d 801, 158 USPQ 20 (1968). (Emphasis in original)

Here, it is only the applicants' disclosure that provides the teaching to expose strawberry plants to daytime temperatures of at least 30°C for at least six weeks under photoperiodic conditions, and to then reduce the daytime temperatures to about 25°C in a subsequent growing period under photoperiodic conditions to induce flowering, and the applicants' disclosure cannot be used to reconstruct the prior art references for a rejection under §103.

In view of the foregoing remarks and amendments to the claims, reconsideration and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing remarks and amendments to the claims, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

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The applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

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Respectfully submitted,

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Attachments: Petition and Fee for Extension of Time
Supplemental Declaration

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